

## CLAIMS

What is claimed:

1) A method of facilitating a universally applicable editing, testing and execution system for a plurality of configurable data processing (discourse engine) systems configured to process user generated data, the method comprising:

supplying a meta model and meta-model data; specifying formations of user generated data and constraints according to a meta model;

specifying allowable formations of user generated data according to meta-model data;

displaying the user-generated data;

manipulating the user-generated data;

interpreting the meta-model data with the user-generated data according to a plurality of coded logic steps; and

visually representing the interpreted user-generated data.

2. A universal meta model comprising

- a. means for representing a plurality of classes of objects;
- b. means for representing a plurality of default class behavior categories;
- c. means for representing a plurality of data members of classes of objects;
- d. means for representing a plurality of default member behavior categories;

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- e. means for representing a plurality of relationships between classes of objects;
- f. means for representing a plurality of relationships between objects; and
- g. means responsive to at least one of a - f for modeling data formations and validation constraints thereon.

3. A universal meta model as in claim 2 comprising means for representing a plurality of optional additional class behaviors for a plurality of class behavior categories.
4. A universal meta model as in claim 2 comprising means for representing a plurality of optional additional member behaviors for a plurality of member behavior categories.
5. A universal meta model as in claim 2 comprising means for representing a plurality of links between relationships between classes of objects.
6. A universal meta model as in claim 5 comprising means for representing a plurality of composite relationships composed of a plurality of links between a plurality of relationships between classes of objects.
7. A universal meta model as in claim 5 comprising means for representing a plurality of composite relationships composed of a plurality of links between a plurality of relationships between classes of objects.
8. A universal meta model as in claim 5 comprising means for representing direction of relation links.
9. A universal meta model as in claim 2 comprising means for representing a plurality of default relationship behavior categories.

10. A universal data editor component comprising

- a. a universal meta model as in claim 2;
- b. means for storing data instantiations of said universal meta model classes;
- c. means for storing data instantiations of said universal meta model members;
- d. means for storing data instantiations of said universal meta model relations; and
- e. means for storing data instantiations of said universal meta model relation links.

11. A universal data editor component as in claim 10 comprising

- a. means for storing data instantiations of said universal meta model tree views;
- b. means for storing data instantiations of said universal meta model tree levels;

12. A universal data editor component as in claim 10 comprising

- a. means for storing data instantiations of said universal meta model elements representing instantiations of classes represented by said universal meta model classes;
- b. means for storing data instantiations of said universal meta model values representing instantiations of said universal meta model members;

13. A universal data editor component as in claim 10 comprising

- a. means for storing data instantiations of said universal meta model elements representing instantiations of classes represented by said universal meta model classes;
- b. means for storing data instantiations of said universal meta model values representing instantiations of said universal meta model members;

14. A viewer and controller for universal data editor component comprising

- a. a universal data editor component as in claim 10;
- b. means for displaying a graphical representation of data;
- c. means for displaying textual representation of data; and
- d. means for displaying tabular representation of data;

15. A viewer and controller for universal data editor component as in claim 14

- a. means for displaying a graphical representation of data formations;
- b. means for displaying textual representation of data formations; and
- c. means for displaying tabular representation of data formations;

16. A universal data editing, testing, and management system comprising

- a. means for interfacing with a viewer and controller for universal data editor component;
- b. means for interfacing with a plurality of data packaging components;
- c. means for interfacing with a plurality of data deployment components; and

d. means for interfacing with a a plurality of simulated user interface components.